Field Activities

The field activities task includes gauging and collecting the required groundwater samples, transporting the samples to the analytical laboratory, abandoning monitoring wells BL-5 through BL-8, and the storage, removal, and disposal of all wastes generated at the site. The general scope of field activities will be as follows:

Groundwater gauging, sampling, and analysis

- Gauge water levels within temporary monitoring wells BL-1 through BL-8 at the site. Gauging will be accomplished using an electronic water level meter. Air monitoring for volatile organic compounds will be performed with a photoionization detector (PID) upon opening the well cap.

- Purge groundwater within each of the four wells to be abandoned (BL-5 through BL-8). Purging will be accomplished by pumping using an electric submersible pump. Five well volumes will be purged from each well before sampling. New drinking-water grade polyethylene tubing will be used at each well for purging. We understand that each of the monitoring wells are two-inches in diameter, and completed to a depth of about 80-feet.

- During well purging, the groundwater will be monitored for field parameters including temperature, pH, turbidity, and electrical conductivity. Field logs will be maintained to document these parameters.

- Collect groundwater samples from each of the four monitoring wells. Chemical analysis will be performed by BC Analytical, Bakersfield, California, a state-certified laboratory. Samples will be collected using new, disposable polyethylene bailers equipped with a low-flow bottom-emptying device. Samples will be decanted into 40-ml VOA vials and 500-ml polyethylene bottles and analyzed for trichloroethene (TCE) by EPA Method 8260 and for hexavalent chromium by EPA Method 7196, respectively. Chromium VI analyses will be performed for both total and dissolved concentrations. The dissolved fraction will be prepared by filtering in the field using a peristaltic pump and disposable 0.45-micron filters. Quality assurance samples will include a trip blank, equipment rinsate blank, and a field blank as listed in the workplan. Costs quoted in this proposal assume that a total of seven samples will be analyzed on a standard turn-around-time basis.

- The samples will be transported via courier to BC Analytical in Bakersfield, California. The hexavalent chromium analysis has a holding time of 24 hours, therefore the samples will be transported for testing on the day of collection. The samples will be handled and transported in a chilled ice chest under chain-of-custody protocol.

- All non-disposable sampling equipment will be decontaminated before each use by an Alconox detergent wash and double rinsing with distilled water. The submersible pump will be decontaminated by placing the pump in a container and pumping 20 gallons of potable water through it, and then rinsing again with distilled water. Decontamination fluids will be stored in 55-gallon drums for disposal after profiling.

Well Abandonment

- Abandon temporary monitoring wells BL-5 through BL-8 at the site. The wells will be abandoned by overdrilling the well casing, screen, grout, and sand pack using eight-inch diameter hollow stem auger